

## Syllabus

Instructor: *Sheng-Chiang (John) Lee*

SEB 244, 478-301-2599

Office Hours: MWF 2PM ~ 3:30PM or by appointment

Co-requisite: PHY 121L; Pre-requisite: MAT 133 or equivalent

Textbook: *Physics*, 2<sup>nd</sup> or 3<sup>rd</sup> edition, by James S. Walker

### Course Description:

This course is the first of a 2-semester algebra-based introductory physics sequence. It serves as an introduction to the field of physics, which is a foundation of other scientific disciplines. Although physical principles can/will be demonstrated in the class conceptually, they are all formulated through mathematical expressions. Therefore, students' performance in this aspect will influence the grades significantly. Students who take this course should be fluent in algebraic manipulations, trigonometry, and power/logarithmic functions.

The topics covered in this class include:

*Newton's laws of motion, momentum, work, and energy; gravity; fluid dynamics and thermal physics.*

Students should also take PHY121L, which is the laboratory counterpart of this course.

### Objectives:

After taking this course, you are expected to

- Be familiar with the common scientific terminologies.
- Develop reasonable physical intuitions and be able to qualitatively understand simple physical systems and predict their behaviors.
- Be able to apply scientific logic to solve physical problems analytically and quantitatively.

### Grading Methods:

Grading Scale:

Score:	90+	85~89	80~84	75~79	70~74	60~69	59-
Grade:	A	B+	B	C+	C	D	F

Grading Components:

	BlackBoard Quizzes	In-Class Quizzes	Exams (3 mid-terms + 1 final)
Weight:	5%	25%	(15+15+15+25=70)%

**BlackBoard Quizzes** are mostly conceptual questions and will be given before starting a chapter through BlackBoard. The purpose of these quizzes is to let you show your concepts about the materials, so that the instructor might teach more efficiently. The quizzes will be available to you on BlackBoard few days before a class, and you will be notified about the availability. The quizzes are due at the midnight (12am) before the corresponding classes. As long as you "**complete**" the quiz in time, you will receive **full** credit for the quiz. There will be **NO** make-up quiz available. If you miss a quiz, you will receive 0 point for the quiz unless you are legitimately excused.

**In-Class Quizzes** are working problems taken almost directly from the textbook content of assigned readings. All quizzes will be announced in the previous class, and **NO** make-up quizzes are available for unexcused absence or late for a class.

**Exams** are inevitably **accumulative**, since physics is an accumulative knowledge. You can not master more advanced topics without being fluent with the basics. However, exams will concentrate

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on the content covered in the corresponding periods, unless otherwise specified. All exams will be close-book. **A formula sheet will be provided**, and you should only bring your pen/pencil, calculator, blank paper for calculation, and your knowledge of physics to the exams. **No** make-up exams are available unless you are legitimately excused.

Your grades will be posted on BlackBoard immediately after your work is graded. If there is any concern about your grades, you should discuss with me within **ONE** week after they are posted.

### ***Important Dates:***

**Last Day for Course Withdrawal: 3/26!!!!**

**Final Exam: 9am ~ 12am, 5/07**

### ***Class Policies:***

**Attendance Policy:** Attendance is not mandatory. However, students are solely responsible for learning the materials covered in the missed classes.

**Class Etiquette:** You are expected to conduct yourself in a respectful manner to your fellow classmates and the instructor. The instructor may ask you to leave the classroom/lab if your behavior is disturbing to the instructor or other students.

**Honor Code:** You are bound by the Mercer honor code. The College's academic misconduct policy will be followed. All work, for which a grade is received, must be the **original** work of the **student** without aid or assistance of another party, or any printed and or electronic data/information. Academic misconduct cases will be referred to the honor council and the student will automatically receive a grade of incomplete (IC) pending a ruling by the honor council.

**Cell Phone and Pager Usage:** Out of courtesy for all those participating in the learning experience, all cell phones and pagers must be **kept in your pocket/backpack with power/ringer off** before entering any classroom, lab, or formal academic or performance event. Warning will be given for the first-time violation. One semester credit will be taken for each following violation up to three times. If a student keeps violating the policy, one may be asked to leave the room by the instructor.

**Documented Disability Statement:** Students with a documented disability should inform the instructor at the close of the first class meeting. The instructor will refer you to the office of Student Support Services (SSS) for consultation regarding evaluation, documentation of your disability, and recommendations for accommodation, if needed. Students will receive from SSS the *Faculty Accommodation Form*. On this form SSS will identify reasonable accommodations for this class. The form must be given to the course instructor for signature and then returned to SSS.

To take full advantage of disability services, it is recommended that students contact the Office of Student Support Services, immediately. The office is located on the third floor of the Connell Student Center.

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*Tentative Course Schedule:* may vary according to class progress

<b>Week</b>	<b>Topic</b>	<b>Required Reading</b>
01/13 – 01/16	Ch1 ~ Ch2	Ch1 ~ Ch2
01/20 – 01/23	Ch2 ~ Ch3	Ch2 ~ Ch3
01/26 – 01/30	Ch4	Ch4
02/02 – 02/06	Review; 1 <sup>st</sup> Midterm (Ch1 ~ Ch4)	Ch1 ~ Ch4
02/09 – 02/13	Ch5	Ch5
02/16 – 02/20	Ch6	Ch6
02/23 – 02/27	Ch7	Ch7
03/02 – 03/06	Ch7; 2 <sup>nd</sup> Midterm	Ch5 ~ Ch7
03/09 – 03/13	Spring Break	
03/16 – 03/20	Ch8	Ch8
03/23 – 03/27	Ch8 ~ Ch9	Ch9
03/30 – 04/03	Ch9	Ch9
04/06 – 04/10	Ch9 ~ Ch10	Ch10
04/13 – 04/17	3 <sup>rd</sup> midterm	Ch8 ~ Ch10
04/20 – 04/24	Ch10 ~ Ch11/Thanksgiving Break	Ch11
04/27 – 05/01	Ch13	Ch13
05/07	Final Exam: 9am ~ 12am	